

## UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: ~~WELL LOG~~ ELECTRIC LOGS FILE ☒ WATER SANDS LOCATION INSPECT. SUB. REPORT/abd.

DATE FILED JULY 12, 1995

LAND: FEE &amp; PATENTED FEE STATE LEASE NO.

PUBLIC LEASE NO.

INDIAN

DRILLING APPROVED AUGUST 23, 1995

SPUDED IN:

COMPLETED: PUT TO PRODUCING

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED LOCATION ABANDONED APD EXPIRED EFFECTIVE SEPTEMBER 12, 1996

FIELD: FERRON FIELD

UNIT: NA

COUNTY: EMERY

WELL NO. RYAN/DAVIS #6-6-19-8

API NO. 43-015-30254

LOCATION 1980' FNL FT. FROM (N) (S) LINE 1930' FWL

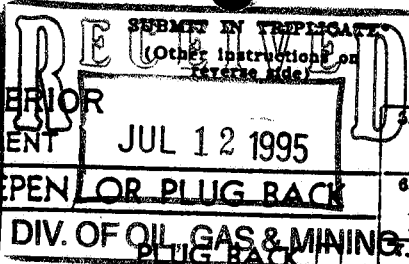
FT. FROM (E) (W) LINE SE NW

1/4 - 1/4 SEC 6

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
19S	8E	6	CHANDLER & ASSOC INC				

CONFIDENTIAL

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

1A. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		DIV. OF OIL GAS & MINING	
B. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		UNIT AGREEMENT NAME N/A	
2. NAME OF OPERATOR Chandler & Associates, Inc.		8. FARM OR LEASE NAME Ryan/Davis	
3. ADDRESS OF OPERATOR 475 Seventeenth St., Suite 1000 Denver, CO 80202		9. WELL NO. #6-6-19-8	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FNL 1930' FWL At proposed prod. zone SE 1/4 NW 1/4		10. FIELD AND POOL, OR WILDCAT Ferron	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* See Topo Map "A"		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 6, T19S, R8E	
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 330'		16. NO. OF ACRES IN LEASE 197.13	17. NO. OF ACRES ASSIGNED TO THIS WELL 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		19. PROPOSED DEPTH 2075'	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5856' GR		22. APPROX. DATE WORK WILL START* A.S.A.P.	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	300'	(See attached Drilling Plan)
7 7/8"	5 1/2"	15.5#	2075'	(See attached Drilling Plan)

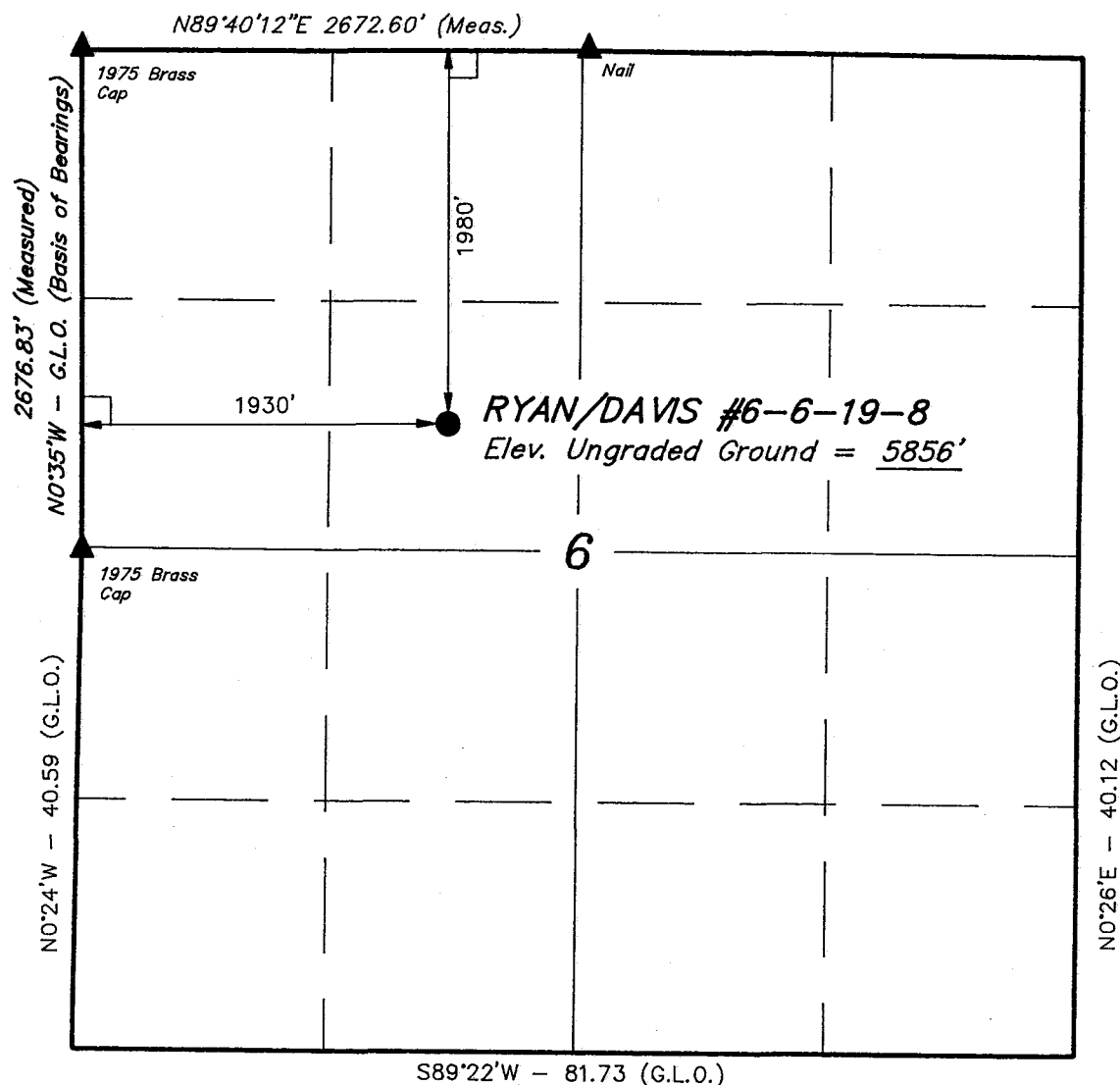
1. M.I.R.U.
2. Drill to T.D. 2075'
3. Run 5 1/2" casing if commercial production is indicated
4. If dry hole, well will be plugged and abandoned as instructed.
5. Well will be drilled with air/mist to T.D. mud will be in place to run 5 1/2" casing.

I hereby certify that I am responsible by the term and conditions of the lease to conduct lease operations. Bond coverage for lease activities is being provided by Chandler & Associates, Inc. State Bond # 19S19040787.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED <u>Robert L. Kay</u> (This space for Federal or State office use)		TITLE <u>Agent for Chandler</u>	DATE <u>7-7-95</u>
PERMIT NO. <u>43-015-30254</u>	APPROVAL DATE <u>8/23/95</u>		
APPROVED BY <u>Matthew</u>	TITLE <u>Photom Engineer</u>		DATE <u>8/23/95</u>
CONDITIONS OF APPROVAL, IF ANY:			

**T19S, R8E, S.L.B.&M.**

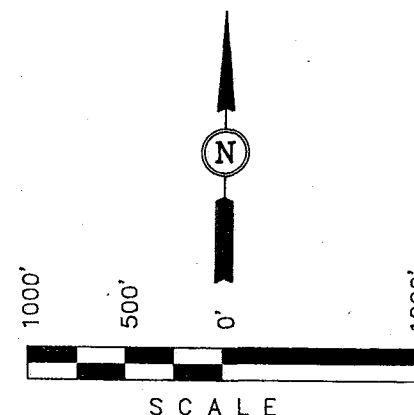


**CHANDLER & ASSOCIATES, INC.**

Well location, RYAN/DAVIS #6-6-19-8, located as shown in the SE 1/4 NW 1/4 of Section 6, T19S, R8E, S.L.B.&M. Emery County, Utah.

**BASIS OF ELEVATION**

SPOT ELEVATION AT THE NORTHWEST CORNER OF SECTION 6, T19S, R8E, S.L.B.&M. TAKEN FROM THE CASTLE DALE QUADRANGLE, UTAH, EMERY COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5941 FEET.



**CERTIFICATE**

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 1613 FOR  
STATE OF UTAH

**LEGEND:**

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

**UINTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 4-24-95	DATE DRAWN: 4-25-95
PARTY L.D.T. C.M. D.J.S.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE CHANDLER & ASSOCIATES, INC.	

# STATE OF UTAH

Operator: CHANDLER & ASSOCIATES	Well Name: RYAN/DAVIS #6-6-19-8
Project ID: 43-015-30254	Location: SEC. 06, T19S, R08E

## Design Parameters:

Mud weight (13.00 ppg) : 0.675 psi/ft  
 Shut in surface pressure : 1334 psi  
 Internal gradient (burst) : 0.032 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using buoyed weight  
 Service rating is "Sweet"

## Design Factors:

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

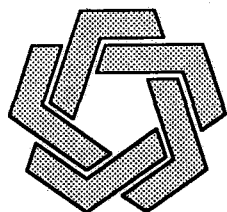
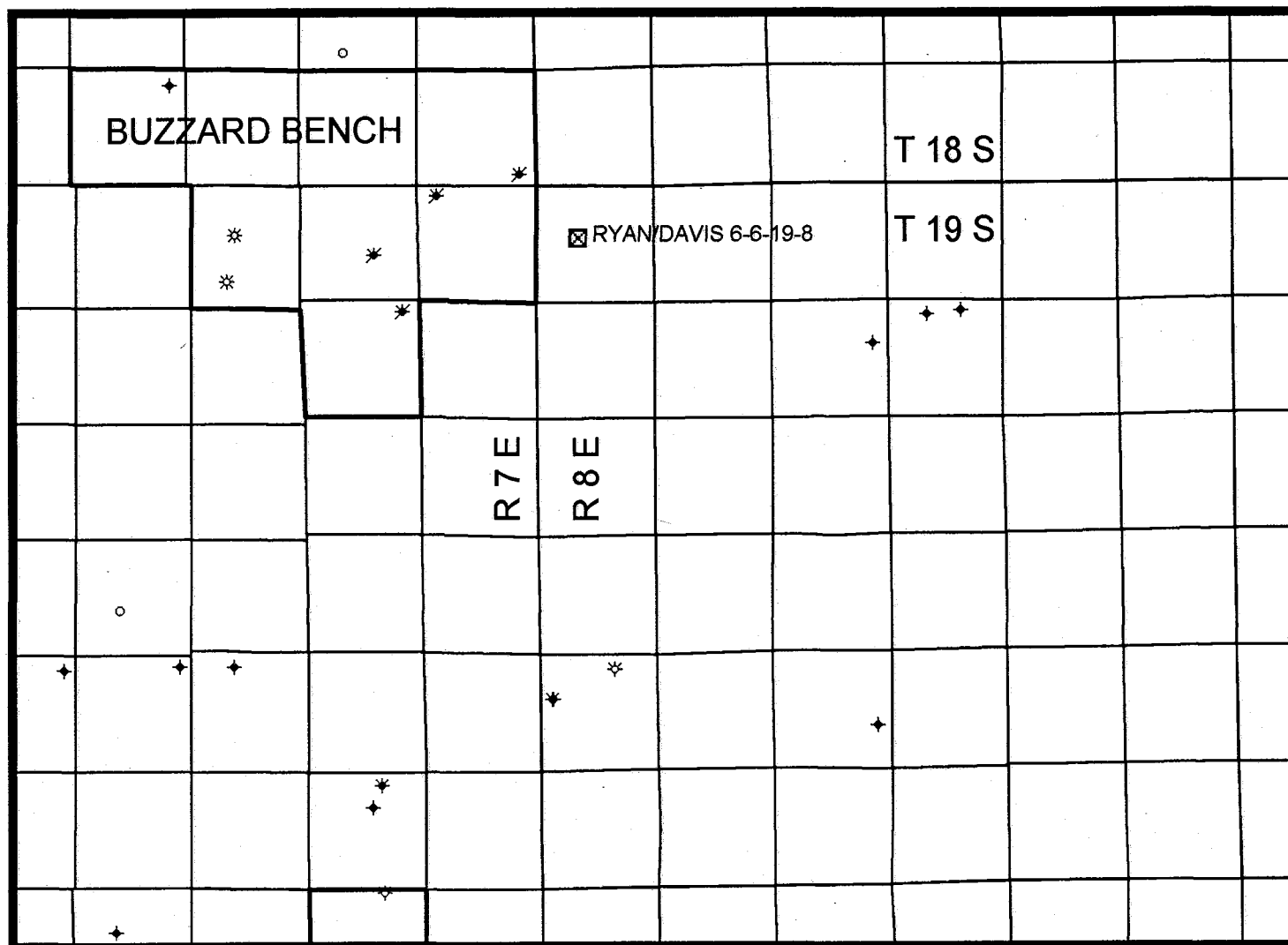
Length (feet)		Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	2,075	5.500	17.00	J-55	ST&C	2,075	4.767	
	Collapse Load Strgth S.F. (psi) (psi)			Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load Strgth S.F. (kips) (kips)	
1	1401	4910	3.504	1401	5320	3.80	28.26	229 8.10 J

Prepared by : MATTHEWS, Salt Lake City, UT  
 Date : 08-11-1995  
 Remarks :

Minimum segment length for the 2,075 foot well is 1,000 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas  
 temperature of 84°F (Surface 74°F, BHT 95°F & temp. gradient 1.000°/100 ft.)  
 The mud gradient and bottom hole pressures (for burst) are 0.675 psi/ft and  
 1,401 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guide-  
 line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with  
 evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body  
 Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and  
 Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.  
 Costs for this design are based on a 1987 pricing model. (Version 1.06)

CHANDLER & ASSOCIATES  
 FERRON SS DRILLING  
 SEC. 6, T19S, R8E  
 EMERY COUNTY, STATE SPACING



STATE OF UTAH  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS & MINING

DATE: 8/17/95

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING (OGM)  
ON-SITE PREDRILL EVALUATION AND REVIEW

OPERATOR: CHANDLER & ASSOCIATES INC.

WELL NO: RYAN/DAVIS 6-6-19-8 LEASE NO: FEE

API NUMBER: 43 - 015 - 30254 LEASE TYPE: STATE      FEE X

PROPOSED LOCATION: C O N F I D E N T I A L

SURFACE: 1980 FNL 1930 FWL

SURFACE: QTR/QTR: SE/NW SEC: 6 TWP: 19S RNG: 8E

BOTTOM HOLE: same as above

BOTTOM HOLE: QTR/QTR:      SEC:      TWP:      RNG:     

COUNTY: EMERY FIELD: CODE/NAME: 135/FERRON

GPS COORDINATES: 4338829 N 494125 E

SURFACE OWNER: INA LEE J. MAGNUSON SURFACE AGREEMENT (Y/N): N

LOCATION AND SITING:

X Plat      R649-2-3. Unit:     

     Bond Sta      Fee      X R649-3-2. General

Number:           R649-3-3. Exception

     Potash (Y/N)      UCA 40-6-6. Drilling Unit

     Oil Shale (Y/N) Cause No:     

X Water Permit      Date:     

     RDCC Review     

ARCHEOLOGICAL AND PALEONTOLOGY SURVEY RECEIVED: (Y/N) NOT REQUIRED

SITE PROBLEMS: None

Onsite Participants: Jim Simonton, Joe Murphy-Chandler & Associates, Brandon Bowthorpe, Greg Olsen-Uintah Engineering Jim Thompson, Michael Hebertson-DOGM.

Regional Setting/Topography: Gentle hills, pasture land. Northwest flank of the San Rafael Swell, Mancos lowlands incised by moderate to shallow gullies. Open flats and sandstone capped buttes.

**DRILLING PROGRAM:**

1. Surface Formation and Estimated Tops/Geologic Markers  
See attached drilling plan.
2. Estimated Depths of Anticipated Water, Oil, Gas or other Mineral Bearing Zones

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil/Gas	<u>See Attached</u>	<u>                    </u>
Oil	<u>APD.</u>	<u>                    </u>
Water	<u>                    </u>	<u>                    </u>
Other	<u>                    </u>	<u>                    </u>

All fresh water sands encountered during drilling shall be recorded and reported to the Division on Form 7.

3. Well Control Equipment & Testing Procedures  
See attached drilling plan.
4. Proposed Casing and Cementing Program  
See attached drilling plan.
5. Mud Program and Circulating Medium - include mud components and weights, when drilling with air also include length and location of blooie line  
See attached drilling plan.
6. Coring, Logging, and Testing Program  
See attached drilling plan.
7. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards, also list anticipated lost circulation zones, abnormal temperature zones and possible hydrogen sulfide bearing zones  
See attached drilling plan.

**SURFACE USE PLAN:**

Current Surface Use: Livestock pasture.

Proposed Surface Disturbance: Location will be 300' X 160' including all pits.

1. Existing Roads  
See attached surface use plan.
2. Planned Access Roads - include length of new road, length of existing road to be upgraded, maximum disturbed and travel surface widths, maximum grades, turnouts, surface materials, drainage, cattleguards  
See attached surface use plan.
3. Location of existing wells within one-mile radius of proposed location, include water, injection, producing, drilling with present status of each well  
No existing wells are within a one-mile radius of the proposed location.
4. Location of Production Facilities and Pipelines  
If production is established, all production facilities shall be contained within the location site.
5. Location and Type of Water Supply (include Division of Water Rights approval or identifying number)  
Water used for drilling shall be obtained from a private water source, located in the area.
6. Source of Construction Material  
See attached surface use plan.
7. Waste Management Plan  
See attached surface use plan.
8. Ancillary Facilities  
See attached location plat.
9. Well Site Layout  
See attached cut sheet.
10. Surface Restoration Plans  
See attached surface use plan.

**ENVIRONMENTAL PARAMETERS:**

Affected Floodplain and/or Wetlands:

Is a 404 dredge and fill permit required? (Any activity which will change the bottom elevation of the "waters of the United States" including wetlands, natural and artificially created waters, and even some drainages may require a permit from the Army Corps of Engineers) N/A

Flora/Fauna:

Briefly describe the flora found on the proposed site and the fauna evidenced or sighted on or near the proposed location  
Grass, Russian olive, sand bar willows. Raptors (seasonal),  
Deer, Elk (possible). Coyote, native songbirds, lizards and  
insects.

SURFACE GEOLOGY

Soil Type and Characteristics: Clay mixed with sand.  
Decomposed Mancos shale, and Castlegate SS.

Surface Formation & Characteristics: Mancos shale.  
Light tan to buff color in weathered form, medium grey in  
fresh sample, mostly clay.

Erosion/Sedimentation/Stability: A possible surface  
water problem was noted. To resolve this issue the  
operator will drill test holes in the reserve and flare  
pit areas, during the summer. If a shallow water table is  
located, the operator will drill the well during the winter  
months.

Paleontological Potential Observed: N/A

RESERVE PIT

Characteristics: Pit is 30' X 45' X 8'.

Lining (Site ranking form attached): Because of the surface  
water potential the reserve pit will require a 12 mil  
plastic liner.

OTHER OBSERVATIONS

Cultural Resources/Archaeology (if proposed location is on State land, has an archaeology clearance been obtained?): If fossils  
are discovered during construction, the operator shall cease  
work immediately and contact the Division to determine the  
significance of the discovery.

Comments: \_\_\_\_\_

J. Thompson, M. Hebertson

8/9/95 12:30 pm

OGM Representative

Date and Time

## STATEMENTS OF BASIS

OGM Review of Application for Permit to Drill (APD)

### **ENGINEERING/LOCATING and SITING:**

The proposed location meets the location and siting requirements of R649-3-2. The application and proposed casing and drilling plans appear to be consistent with accepted industry standards of practice and sound engineering design. A casing design safety check is attached. Blow out prevention monitoring/contingency plans are adequate.

Signature Frank Matthews Date 15-Aug-95

### **GEOLOGY/GROUND WATER:**

Near surface ground water is most likely seasonal and will be protected by the conductor pipe. The proposed casing and cement program will adequately protect any other ground water encountered.

Signature D. Jarvis Date 8/16/95

### **SURFACE:**

At the on-site inspection on 8/9/95 the drill site and the concern of a potential surface water problem was discussed. The access road will be upgraded and utilized. No adverse environmental concerns were noted, impact will be minimal.

Signature J. Thompson, M. Hebertson Date 8/9/95

### **STIPULATIONS for APD Approval:**

1. Surface water depth shall be determined prior to drilling.
2. A Pit liner of 12 mil minimum thickness is required.

### **ATTACHMENTS:**

Photos are available.

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

Site-Specific Factors	Ranking Score	Final Ranking Score
<b>Distance to Groundwater (feet)</b>  >200 100 to 200 75 to 100 25 to 75 <25 or recharge area	0 5 10 15 20	10
<b>Distance to Surf. Water (feet)</b>  >1000 300 to 1000 200 to 300 100 to 200 < 100	0 2 10 15 20	
<b>Distance to Nearest Municipal Well (feet)</b>  >5280 1320 to 5280 500 to 1320 <500	0 5 10 20	
<b>Distance to Other Wells (feet)</b>  >1320 300 to 1320 <300	0 10 20	
<b>Native Soil Type</b>  Low permeability Mod. permeability High permeability	0 10 20	
<b>Fluid Type</b>  Air/mist Fresh Water TDS >5000 and <10000 TDS >10000 or Oil Base Mud  Fluid containing significant levels of hazardous constituents	0 5 10 15  20	

Drill Cuttings Normal Rock Salt or detrimental	0 10	
Annual Precipitation (inches)  <10 10 to 20 >20	0 5 10	
Affected Populations  <10 10 to 30 30 to 50 >50	0 6 8 10	
Presence of Nearby Utility Conduits  Not Present Unknown Present	0 10 15	15
Final Score		25

The summation of all of the above ranking scores will yield one value which shall be used to determine the appropriate type of containment, on a case-by-case basis. The sensitivity levels are as follows:

Level I    Sensitivity:    For scores totaling  $\geq 20$   
Level II   Sensitivity:    For scores totaling 15 to 19  
Level III   Sensitivity:    For scores totaling  $< 15$

**Containment Requirements According to Sensitivity Level**

Level I:        Requires total containment by synthetic liner, concrete structure or other type of total containment structure or material.

Level II:       Bentonite or other compatible lining is discretionary depending on the fluid to be contained and environmental sensitivity.

Level III:      No specific lining requirements.

OTHER GUIDELINES FOR PITS

1. Unlined pits shall not be constructed on areas of fill materials.
2. A pit shall not be constructed in a drainages or floodplain of flowing or intermittent streams.
3. Synthetic liners used for lining reserve pits, shall be of 12 mil thickness or greater and shall be compatible with the fluid to be contained. Synthetic liners used for lining onsite pits with a longer expected life shall be a minimum of 30 mil thickness or as approved by the Division.
4. Synthetic liners shall be installed over smooth fill material which is free of pockets, loose rocks or other materials which could damage the liner.
5. Monitoring systems for pits or closed mud systems may be required for drilling in sensitive areas.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
AUG 22 1995

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. Ina Lee J. Magnuson
2. Name of Operator Chandler & Associates, Inc.	6. If Indian, Allottee or Tribe Name N/A
3. Address and Telephone No. 475 Seventeenth St., Suite 1000 Denver, CO 80202 (303) 295-0400	7. If Unit or CA, Agreement Designation N/A
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980' FNL 1930' FWL (Sec. 6, T19S, R8E, S.L.B. & M.)	8. Well Name and No. Ryan/Davis #6-6-19-8
	9. API Well No. 47-015-30254
	10. Field and Pool, or Exploratory Area Ferron
	11. County or Parish, State Emery, UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Chandler & Associates would like to submit this sundry notice for the additional information to be included in the submitted A.P.D. for the Ryan/Davis #6-6-19-8 proposed well location.

The water source for this well will be from the Cottonwood Creek Consolidated Irrigation Co. The water user claim number is 93-2185 and the two (2) points of diversion will be from the Clipper Canal or the Western Canal which ever is the most accessible. This water will be hauled by Sydbad Construction Co. over the roads which are shown on topo map A & B which are attached to the A.P.D.

14. I hereby certify that the foregoing is true and correct

Signed

*Robert L. Kay*  
Robert L. Kay

Title Agent for Chandler

Date 8-21-95

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

**CHANDLER & ASSOCIATES, INC.**  
**DRILLING PLAN FOR THE**  
**RYAN/DAVIS #6-6-19-8**

**I. DRILLING PLAN:**

1. Geological Surface Formation: QUATERNARY

2. Estimated Tops:

<u>Name</u>	<u>Top</u>	<u>Prod. Phase Anticipated</u>
Top of Ferron	1620'	GAS
Base of Ferron	1925'	
TD	2075'	

3. CASING PROGRAM:

	<u>Depth</u>	<u>Hole Size</u>	<u>Csg. Size</u>	<u>Type</u>	<u>Weight</u>
Surface	300'	12-1/4"	8-5/8"	J-55	24#/ft (new)
Prod.	2075'	7-7/8"	5-1/2"	J-55	15.5#/ft (new)

4. Operator's Specification for Pressure Control Equipment:

- A. 2,000 psi W.P. Double Gate BOP or Single Gate BOP (Schematic attached).
- B. Functional test daily.
- C. All casing strings shall be pressure-tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- D. All ram-type preventers and related control equipment shall be tested at the rated working pressure of the stack assembly or at 70 percent of the minimum internal yield pressure of the casing, whichever is less. Tests shall be done at the time of installation, prior to drilling out, and weekly. All tests shall be for a period of 15 minutes.

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

5. Auxiliary Equipment:

- A. Kelly Cock - yes.
- B. Float at the bit - no.
- C. Monitoring equipment on the mud system - visually.
- D. Full opening safety valve on rig floor - yes.
- E. Rotating head - no.
- F. The blooie line shall be at least 6" in diameter and extend at least 100' from the wellbore into the reserve/blooie pit.
- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').
- H. Compressor shall be tied directly to the blooie line through a manifold.
- I. A mistor with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

6. Proposed Circulating Medium:

<u>Depth</u>	<u>Mud Type</u>	<u>Density</u> <u>(lb./gal)</u>	<u>Viscosity</u>	<u>Water Loss</u>
0'-2075'	Air/Mist	-	-	-

7. Testing, Logging, and Coring Program:

- A. Cores - None anticipated.
- B. DST - none anticipated.
- C. Logging - DIL-GR (TD to base of surface casing).  
FDC-CNL-GR-Cal (TD to base of surface casing).

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

- D. Formation and Completion Interval: Ferron interval, final determination of completion will be made by analysis of logs.  
Stimulation - Stimulation will be designed for the particular area of interest as encountered.
- E. Frac gradient - approximately .80 psi/ft.

8. Cementing Program:

<u>Casing</u>	<u>Volume</u>	<u>Type &amp; Additives</u>
Surface	145 sx	Class "G" (based on 100% access)
Production	260 sx*	180 sx 50-50 poz, plus 80 sx class "G".

Cement Characteristics:

Class "G" - yeild = 1.18 cu.ft. per. sack  
weight = 15.8 lb./gal  
strength = 3200 psi in 72 hrs @ 135 degrees

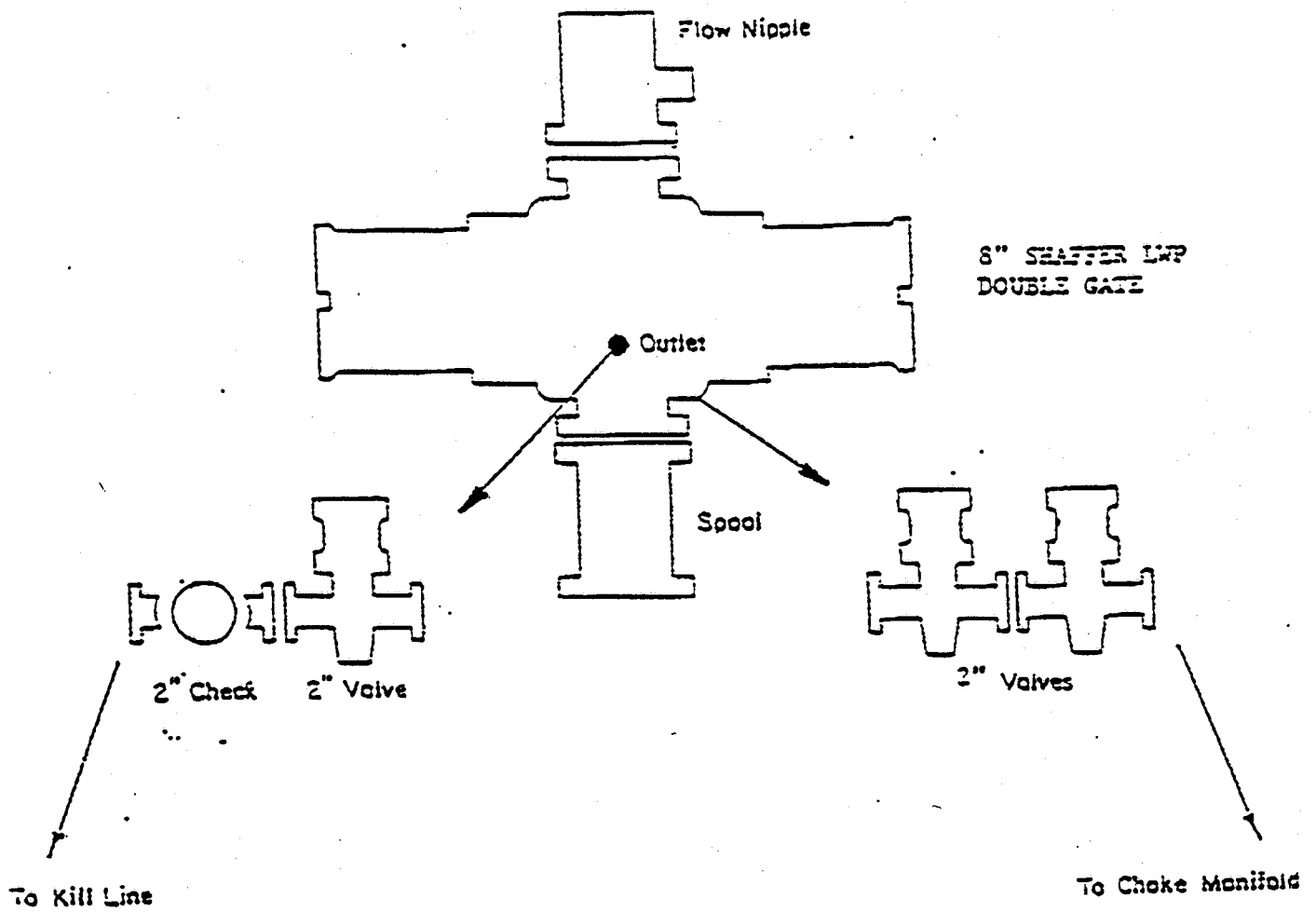
\* Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface.

A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

9. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards:

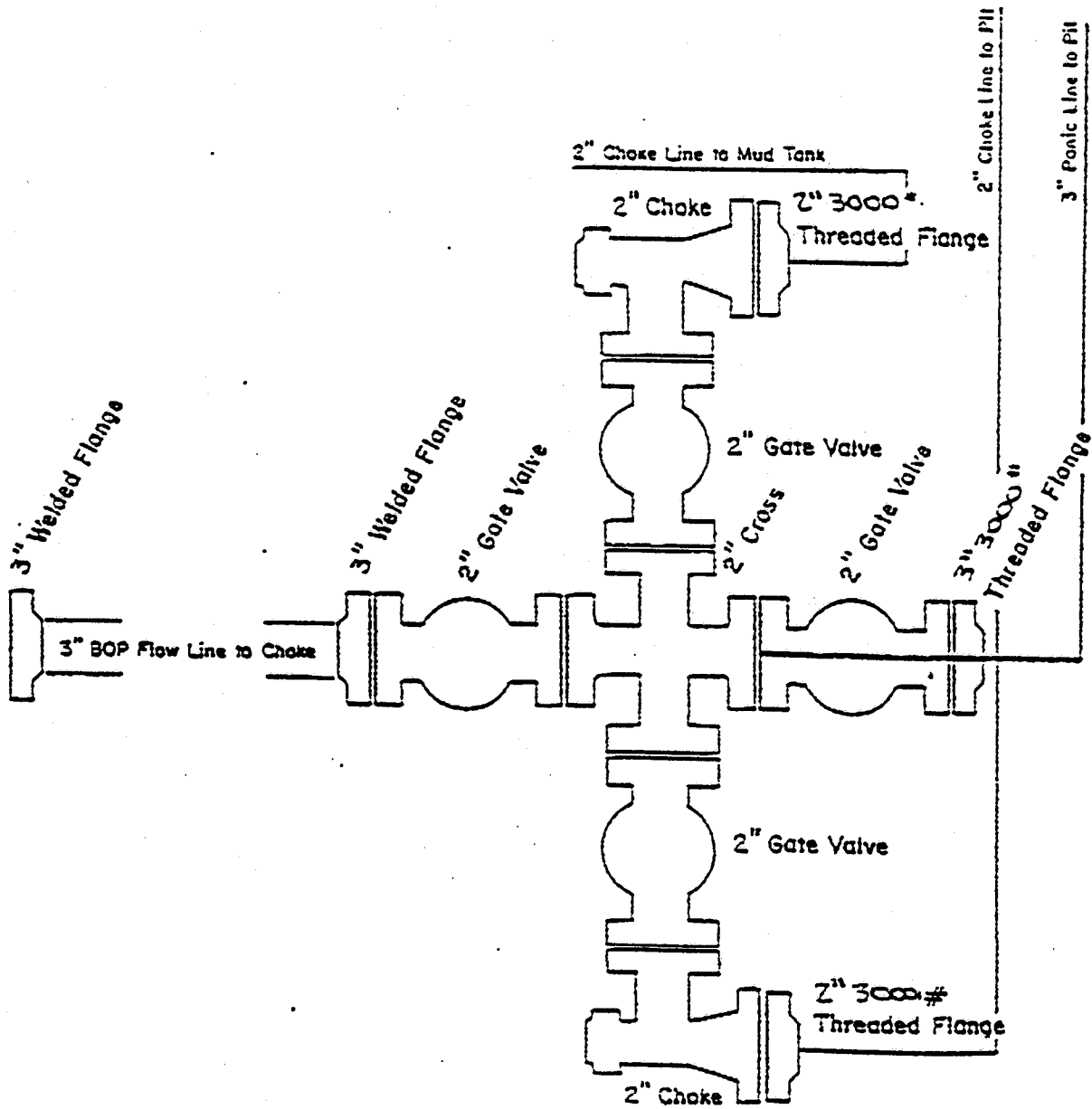
No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 1,500 psi (calculated at 0.723 psi/ft) and maximum anticipated surface pressure equals approximately 1043 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

CHANDLER DRILLING  
RIG NO.7



# CHANDLER DRILLING

RIG NO.7



**II. SURFACE USE PLAN**  
**CHANDLER & ASSOCIATES, INC.**  
**RYAN/DAVIS #6-6-19-8**

1. Existing Road:

- A. Topo Map "A" is the vicinity map, showing the access routes from Castle Dale, Utah.
- B. Topo Map "B" shows the proposed access road to each individual well. It also shows existing roads in the immediate area.
- C. The existing and proposed access road, unless otherwise stated, shall be crowned, ditched, and dipped from the nearest improved road.
- D. Occasional maintenance blading and storm repairs will keep roads in good condition.
- E. There shall be no mud blading on the access road. Vehicles may be towed through the mud provided they stay on the roadway.

2. Planned Access Roads:

The proposed access road, will be crowned, ditched, and dipped.

- A. Maximum grade will be 8% or less, unless otherwise stated.
- B. No turnouts will be required.
- C. Low water crossings to be placed in Proposed Access road during drilling process and culverts may be installed at a later date.
- D. Road surface material will be that native to the area.

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

- E. No cattleguard will be required.
- F. The proposed access road was flagged at the time the location was staked.
- G. The area authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.
- H. The backslopes of the proposed access roads will be no steeper than vertical or 1/4:1 in rock; and 2:1, elsewhere.

The operator or his contractor will notify the State office at least 48 hours prior to commencement of any work on these locations, roadways, or pipelines.

3. Location of Existing Wells:

N/A

4. Location of Existing and/or Proposed Facilities:

- A. All Petroleum Production Facilities are to be contained within the proposed location sites.
- B. In the event that production of these wells is established, the following will be shown:
  - 1. Proposed location and attendant lines, by flagging, if off well pad.
  - 2. Dimensions of facilities.
  - 3. Construction methods and materials.

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Ryan/Davis #6-6-19-8

- C. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, then other arrangements will be made to acquire them from private sources. These facilities will be constructed using bulldozers, graders, and workman crews to construct and place the proposed facilities.
  - D. All permanent facilities placed on the locations shall be painted a non-reflective color that will blend with the natural environment.
  - E. A dike shall be constructed around the tank battery, of sufficient capacity to adequately contain at least 110 percent of the storage capacity of the largest tank within the dike.
  - F. All buried pipelines shall be covered to a depth of 3 feet except at road crossings where they shall be covered to a depth of 4 feet.
  - G. Construction width of the right-of way/pipeline route shall be restricted to 30 feet of disturbance.
  - H. Pipeline location warning signs shall be installed within 90 days upon completion of construction.
5. Location and Type of Water Supply:

Any water to be used for the drilling of this well will be a private water supply which is located in the area.

No water wells are to be drilled.

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Ryan/Davis #6-6-19-8

6. Source of Construction Materials:

A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads from the area. No special access other than for drilling operations and pipeline construction is needed.

B. All access roads are described under item #2 and shown on Map #B.

All Construction material for these location sites and access roads shall be borrow material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time, but if it is required, the appropriate actions will be taken to acquire it from private sources.

C. All well pad surface disturbance area is on Fee lands

7. Methods for Handling Waste Disposal:

A. Drill cuttings will be buried in the reserve pit when covered.

B. Drilling fluids will be contained in the reserve pit.

C. Any hydrocarbon liquids produced while production testing will be contained in a test tank. Any unavoidable spills of oil or other adverse substances or materials will be removed immediately during drilling progress or during completion operations.

D. Portable chemical toilets will be provided and serviced by a local commercial sanitary service.

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Ryan/Davis #6-6-19-8

- E. Garbage and trash will be collected in a trash cage and its contents hauled to a sanitary landfill.

All wastes caused by the construction activities shall be promptly removed and disposed of in a sanitary landfill or as directed by the authorized officer.

- F. Prior to commencement of drilling, the reserve pit will be fenced on three sides using 39-inch net wire with at least one (1) strand of barbed wire. All wire is to be stretched before attaching to corner posts. When drilling activities are completed it will be fenced on the fourth side and allowed to dry (if liquids are present). After drying, the fences will be removed and the pit shall be buried. Reclamation will be undertaken no later than the fall of the year after all drilling activity has ceased.

8. Ancillary Facilities:

No air strips, camps, or other living facilities will be built off the location. Housing and office trailers will be on the location as seen on the location layout.

9. Well Site Layout:

- A. See attached cutsheet.
- B. The areas authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.
- C. The authorized officer will determine after the location is constructed whether the pit is to be lined, and if so, the type of material to be used.
- D. Topsoil shall be stripped to a depth of 4 to 6 inches and stockpiled as shown on the location layout plat.
- E. The backslopes of the locations will be no steeper than vertical or 1/4:1 in rock, and 2:1 elsewhere.

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Ryan/Davis #6-6-19-8

- F. The upper edges of all cut banks on the access roads and well pads will be rounded.
- G. Catchment ponds to be placed as required to intercept drainage re-routes.

10. Plans for Restoration:

- A. Immediately upon completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.
- B. Before any dirt work to restore the location takes place, the reserve pit must be completely dry. The reserve pit will be reclaimed within 90 days from the date of well completion.
- C. The area officer shall be notified at least 48 hours prior to commencing reclamation work.
- D. All disturbed areas will be seeded with the a mixture which is found suitable by the state.
- E. The seed bed will be prepared by disking, following the natural contour. Drill seed on contour at a depth no greater than 1/2 inch. In areas that cannot be drilled, the seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed is recommended.
- F. Fall seeding will be completed after September, and prior to prolonged ground frost.

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Ryan/Davis #6-6-19-8

- G. If the well is a producer, access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will be reshaped, topsoil distributed, and seed distributed according to the above mixtures. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- H. If the well is abandoned or is a dry hole, the access road and location will be restored to approximate the original contours. During reclamation of the site the fill material will be pushed into cuts and up over the backslope. No depressions will be left that would trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the above mixture. The access road and the location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- I. Annual or noxious weeds shall be controlled on all disturbed areas. Method of control shall be by an approved mechanical method or an Environmental Protection Agency (EPA) registered herbicide. All herbicide application proposals must be approved. Application of herbicides must be under direct field supervision of an EPA certified pesticide applicator.

11. Other Information:

- A. The area is used by man for the primary purpose of grazing domestic livestock.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the Authorized Officer.

If any fossils are discovered during construction, the operator shall cease construction immediately and notify the Authorized Officer so as to determine the significance of the discovery.

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

- B. The State considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration shall be reported to the authorized officer immediately including approximate quantities and a sample in a sealed quart container. The undersigned may file for water rights only with a written waiver from the State.
- C. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
- whether the materials appear eligible for the National Register of Historic Places;  
the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary);  
and a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, an operator will then be allowed to resume construction.

- D. Less than 10,000 pounds of any chemical(s) from EPA's Consolidated list of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, and less than threshold planning quantity (TPQ) of any extremely hazardous substances(s), as defined in 40 CFR, would be used, produced, transported, stored, disposed, or associated with the proposed action.

12. Lessee's or Operator's Representative:

Mr. Don Johnson  
Manager Operations/Production  
Chandler & Associates, Inc.  
475 Seventeenth Street  
Suite 1000  
Denver, Colorado 80202  
Telephone #(303)295-0400

Chandler & Associates, Inc.  
Ryan/Davis #6-6-19-8

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite(s) and access route(s); that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by **Chandler & Associates, Inc.**, and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

7-7-95

Date

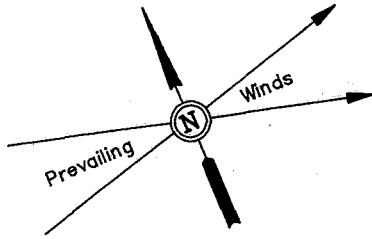
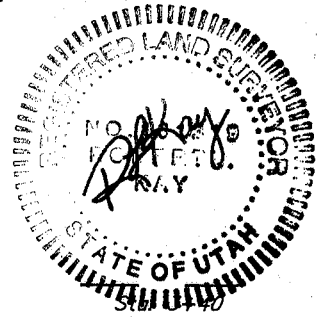
Robert L. Kay

Robert L. Kay  
Agent

# CHANDLER & ASSOCIATES, INC.

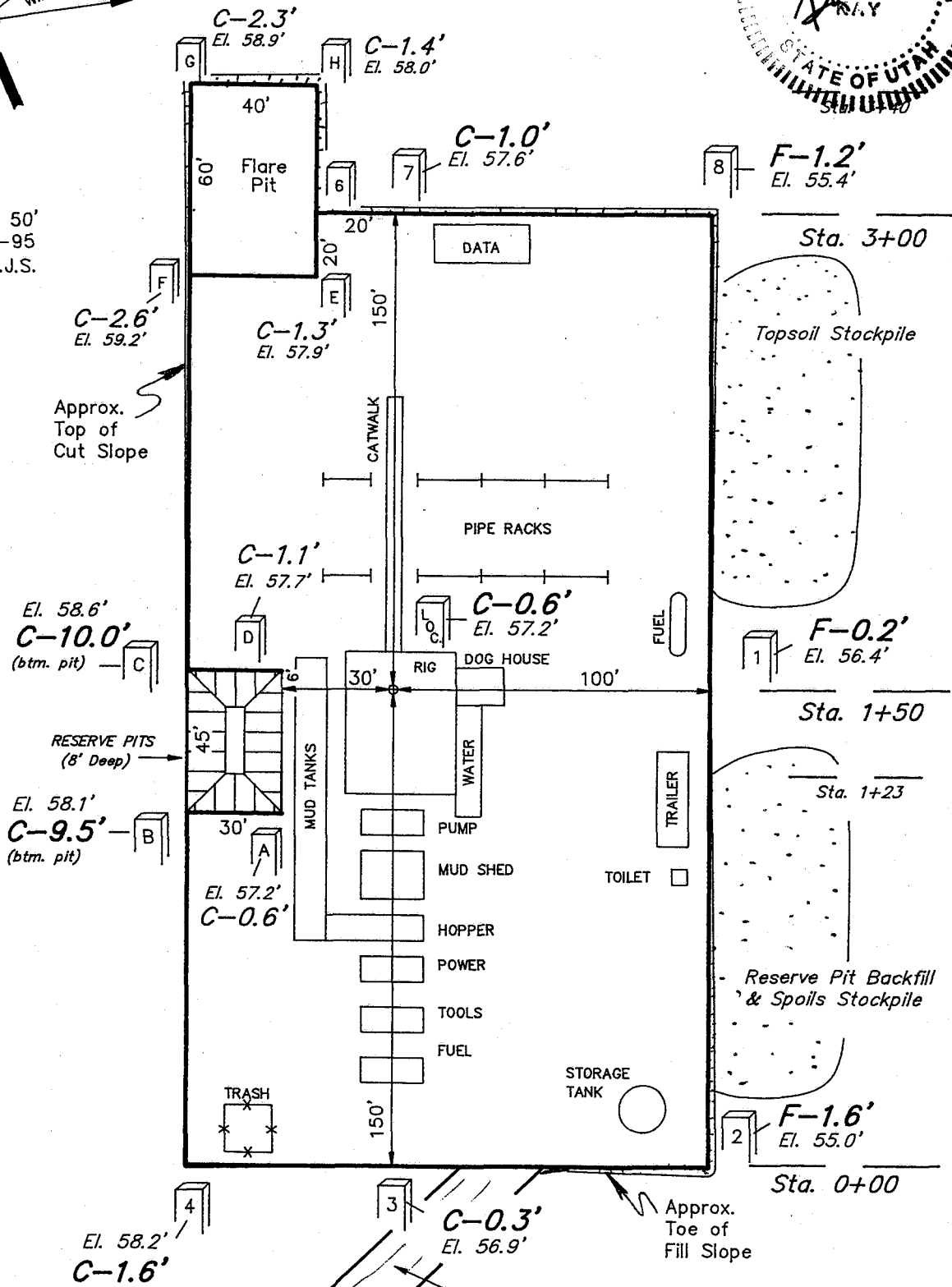
## LOCATION LAYOUT FOR

RYAN/DAVIS #6-6-19-8  
SECTION 6, T19S, R8E, S.L.B.&M.  
1980' FNL 1930' FWL



SCALE: 1" = 50'  
DATE: 4-25-95  
Drawn By: D.J.S.

Pit Capacity With  
2' of Freeboard  
is ±2,190 Bbls.



Elev. Ungraded Ground at Location Stake = 5857.2'

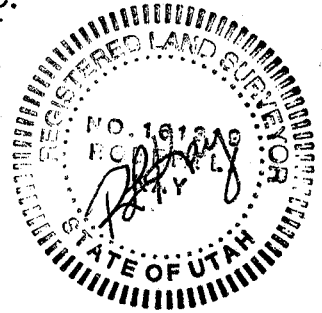
Elev. Graded Ground at Location Stake = 5856.6'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (801) 789-1017

# CHANDLER & ASSOCIATES, INC.

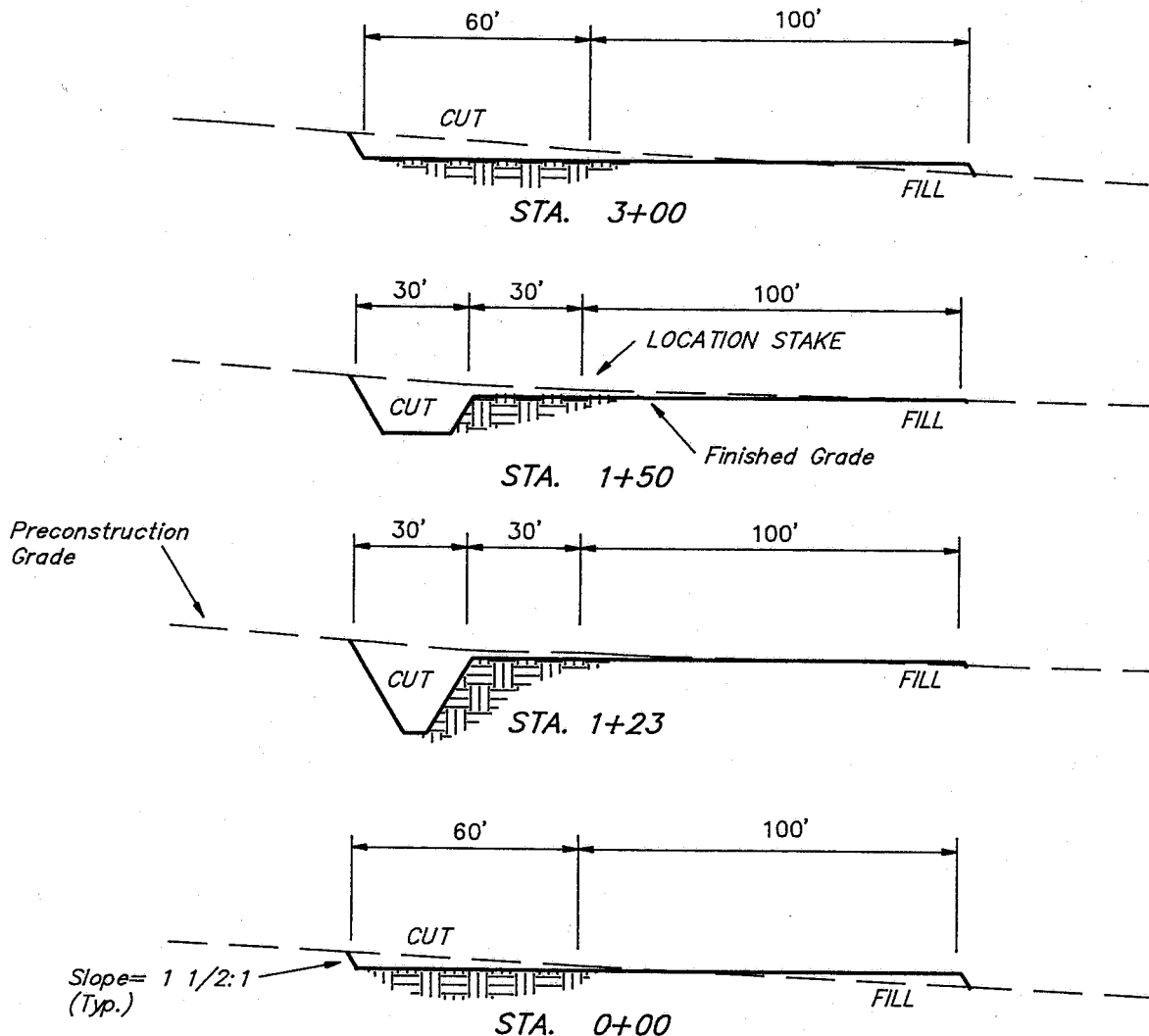
## LOCATION LAYOUT FOR

RYAN/DAVIS #6-6-19-8  
SECTION 6, T19S, R8E, S.L.B.&M.  
1980' FNL 1930' FWL



1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 4-25-95  
Drawn By: D.J.S.

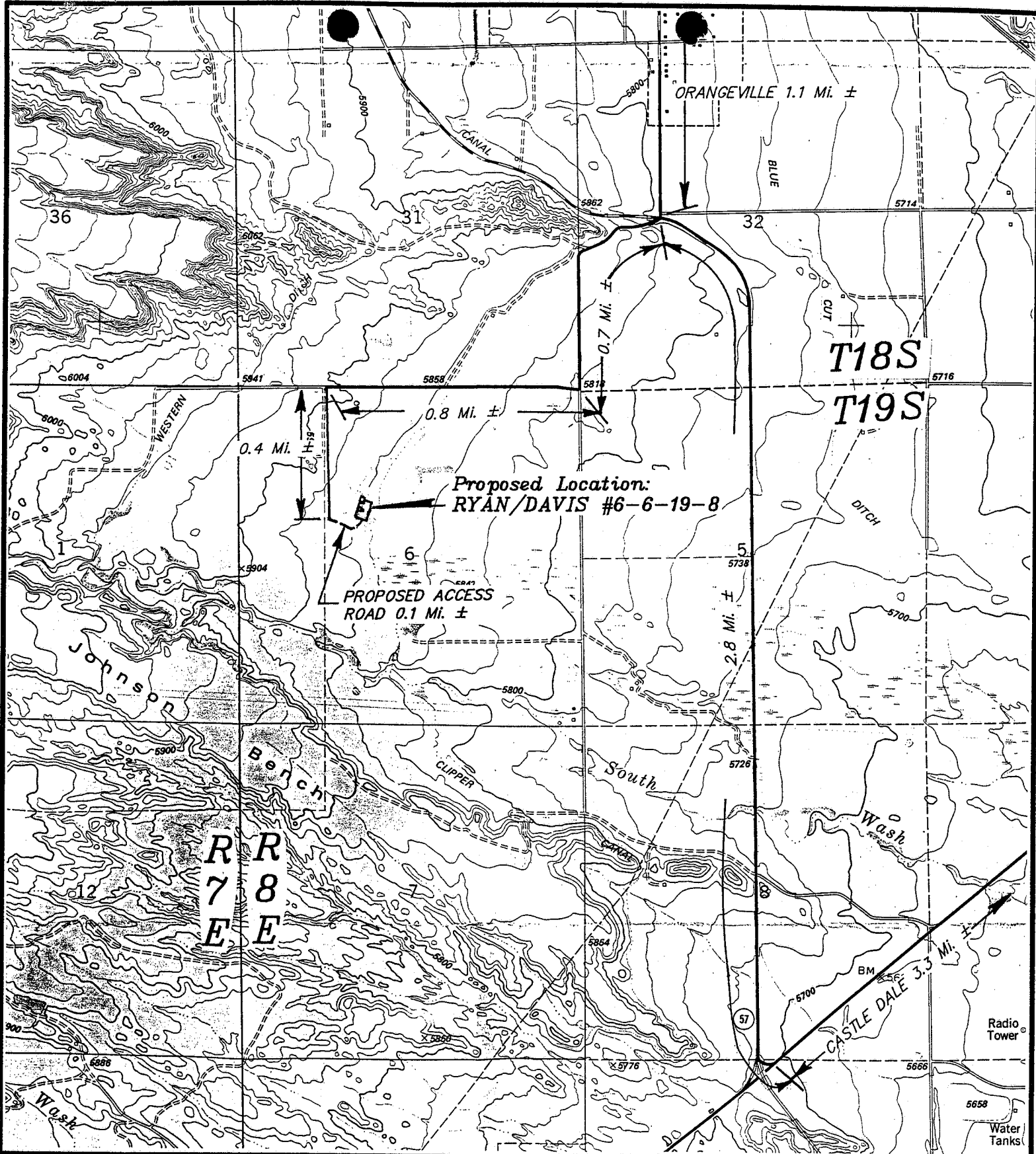


### APPROXIMATE YARDAGES

(6") Topsoil Stripping = 1,020 Cu. Yds.  
Remaining Location = 770 Cu. Yds.  
  
TOTAL CUT = 1,790 CU.YDS.  
FILL = 650 CU.YDS.

EXCESS MATERIAL AFTER  
5% COMPACTION = 1,110 Cu. Yds.  
Topsoil & Pit Backfill  
(1/2 Pit Vol.) = 1,110 Cu. Yds.  
EXCESS UNBALANCE  
(After Rehabilitation) = 0 Cu. Yds.

RYAN/DAVIS #6-6-19-8  
SECTION 6, T19S, R8E, S.L.B.&M.  
1980' FNL 1930' FWL



TOPOGRAPHIC  
MAP "B"

SCALE: 1" = 2000'

DATE: 4-25-95 D.J.S.



CHANDLER & ASSOCIATES, INC.

RYAN/DAVIS #6-6-19-8  
SECTION 6, T19S, R8E, S.L.B. & M.  
1980' FNL 1930' FWL



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

August 23, 1995

Chandler & Associates, Inc.  
475 Seventeenth Street, Suite 1000  
Denver, Colorado 80202

Re: Ryan/Davis #6-6-19-8 Well, 1980' FNL, 1930' FWL, SE NW, Sec. 6, T. 19 S., R. 8 E., Emery County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Admin. R. 649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-015-30254.

Sincerely,

R. J. Fifth  
Associate Director

ldc

Enclosures

cc: Emery County Assessor

Bureau of Land Management, Moab District Office

WAPD



Operator: Chandler & Associates, Inc.

Well Name & Number: Ryan/Davis #6-6-19-8

API Number: 43-015-30254

Lease: Fee

Location: SE NW Sec. 6 T. 19 S. R. 8 E.

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Reserve Pit

The reserve pit will be lined with a synthetic liner of 12 mil minimum thickness.

5. Bonding

Chandler & Associates, Inc. shall furnish a bond or provide evidence of adequate bond coverage prior to spudding the well.



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
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355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

September 12, 1996

Robert Kay  
Chandler & Associates, Inc.  
475 Seventeenth Street, Suite 1000  
Denver, Colorado 80202

Re: Ryan/Davis 6-6-19-8 Well, Sec. 6, T. 19 S., R. 8 E., Emery County, Utah,  
API No. 43-015-30254

Dear Mr. Kay:

Due to excessive time delay in commencing drilling operations, approval to drill the subject well is hereby rescinded, effective immediately.

Please note that a new Application for Permit to Drill must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

Don Staley  
Administrative Manager  
Oil and Gas

lwp

cc: R. J. Firth, Associate Director  
K. M. Hebertson  
Well file

WO1219





99 8 9



1995 8 9



96 8 9



1995 08 09